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and tested at intervals in accordance with the following schedule:

- (1) Every 1,476 days for that portion of the cab car brake system using brake valves that are identical to the passenger coach 26-C brake system;
- (2) Every 1,104 days for that portion of the cab car brake system using brake valves that are identical to the locomotive 26-L brake system; and
- (3) Every 736 days for all other types of cab car brake valves.
- (f) Records of periodic maintenance. (1) The date and place of the cleaning, repairing, and testing required by this section shall be recorded on Form FRA 6180-49A or a similar form developed by the railroad containing the same information, and the person performing the work and that person's supervisor shall sign the form, if possible. Alternatively, the railroad may stencil the vehicle with the date and place of the cleaning, repairing, and testing and maintain an electronic record of the person performing the work and that person's supervisor.
- (2) A record of the parts of the air brake system that are cleaned, repaired, and tested shall be kept in the railroad's files, the cab of the locomotive, or a designated location in the passenger car until the next such periodic test is performed.

[64 FR 25660, May 12, 1999, as amended at 65 FR 41309, July 3, 2000]

§238.311 Single car test.

(a) Except for self-propelled passenger cars, single car tests of all passenger cars and all unpowered vehicles used in passenger trains shall be performed in accordance with either APTA Standard SS-M-005-98, "Code of Tests for Passenger Car Equipment Using Single Car Testing Device," published March, 1998; or an alternative procedure approved by FRA pursuant to §238.21. The incorporation by reference of this APTA standard was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy of the incorporated document from the American Public Transit Association, 1201 New York Avenue, NW., Washington, DC 20005. You may inspect a copy of the document at the Federal Railroad Administration,

Docket Clerk, 1200 New Jersey Avenue, SE., Washington, DC or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

- (b) Each single car test required by this section shall be performed by a qualified maintenance person.
- (c) A railroad shall perform a single car test of the brake system of a car or vehicle described in paragraph (a) of this section if the car or vehicle is found with one or more of the following wheel defects:
 - (1) Built-up tread;
 - (2) Slid flat wheel;
 - (3) Thermal crack;
 - (4) Overheated wheel; or
 - (5) Shelling.
- (d) A railroad need not perform the single car test required in paragraph (c) of this section, if the railroad can establish that the wheel defect is other than built-up tread and is due to a cause other than a defective brake system on the car.
- (e) Except as provided in paragraph (f) of this section, a railroad shall perform a single car test of the brake system of a car or vehicle described in paragraph (a) of this section when:
- (1) Except for private cars, a car or vehicle is placed in service after having been out of service for 30 days or more;
- (2) One or more of the following conventional air brake equipment items is removed, repaired, or replaced:
 - (i) Relay valve;
 - (ii) Service portion;
 - (iii) Emergency portion; or
 - (iv) Pipe bracket.
- (f) Exception. If the single car test cannot be made at the point where repairs are made, the car may be moved in passenger service to the next forward location where the test can be made. A railroad may move a car in this fashion only after visually verifying an application and release of the brakes on both sides of the car that was repaired, and provided that the car is appropriately tagged to indicate the need to perform a single car test. The single car test shall be completed prior

to, or as a part of, the car's next calendar day mechanical inspection.

- (g) If one or more of the following conventional air brake equipment items is removed, repaired, or replaced only that portion which is renewed or replaced must be tested to satisfy the provisions of this section:
 - (1) Brake reservoir;
 - (2) Brake cylinder;
 - (3) Piston assembly:
 - (4) Vent valve;
 - (5) Quick service valve;
 - (6) Brake cylinder release valve;
- (7) Modulating valve or slack adjuster; or
 - (8) Angle cock or cutout cock.

[64 FR 25660, May 12, 1999, as amended at 65 FR 41309, July 3, 2000; 74 FR 25174, May 27, 2009]

§238.313 Class I brake test.

- (a) Each commuter and short-distance intercity passenger train shall receive a Class I brake test once each calendar day that the train is placed or continues in passenger service.
- (b) Except as provided in paragraph (i) of this section, each long-distance intercity passenger train shall receive a Class I brake test:
- (1) Prior to the train's departure from an originating terminal; and
- (2) Every 1,500 miles or once each additional calendar day, whichever occurs first, that the train remains in continuous passenger service.
- (c) Each passenger car and each unpowered vehicle added to a passenger train shall receive a Class I or Class IA brake test at the time it is added to the train unless notice is provided to the train crew that a Class I brake test was performed on the car within the previous calendar day and the car has not been disconnected from a source of compressed air for more than four hours prior to being added to the train. The notice required by this section shall contain the date, time, and location of the last Class I brake test.
- (d) Each Class I brake test shall be performed by a qualified maintenance person.
- (e) Each Class I brake test may be performed either separately or in conjunction with the exterior calendar day mechanical inspection required under § 238.303.

- (f) Except as provided in §238.15(b), a railroad shall not use or haul a passenger train in passenger service from a location where a Class I brake test has been performed, or was required by this part to have been performed, with less than 100 percent operative brakes.
- (g) A Class I brake test shall be performed at the air pressure at which the train's air brakes will be operated, but not less than 90 psi, and shall be made to determine and ensure that:
- (1) The friction brakes apply and remain applied on each car in the train until a release of the brakes has been initiated on each car in response to train line electric, pneumatic, or other signals. This test shall include a verification that each side of each car's brake system responds properly to application and release signals:
- (2) The brake shoes or pads are firmly seated against the wheel or disc with the brakes applied;
- (3) Piston travel is within prescribed limits, either by direct observation, observation of a piston travel indicator, or in the case of tread or disc brakes by determining that the brake shoe or pad provides pressure to the wheel. For vehicles equipped with 8½-inch or 10-inch diameter brake cylinders, piston travel shall be within 7 to 9 inches. If piston travel is found to be less than 7 inches or more than 9 inches, it must be adjusted to nominally 7½ inches. Proper release of the brakes can be determined by observation of the clearance between the brake shoe and the wheel or between the brake pad and the brake disc.
- (4) The communicating signal system is tested and known to be operating as intended; a tested and operating two-way radio system meets this requirement;
- (5) Each brake shoe or pad is securely fastened and correctly aligned in relation to the wheel or to the disc;
- (6) The engineer's brake valve or controller will cause the proper train line commands for each position or brake level setting;
- (7) Brake pipe leakage does not exceed 5 pounds per square inch per minute if leakage will affect service performance;